

Chapter 4: Traffic Control (TC) Plan Format

4.1 CADD

Workspace

- Utilize the most up to date Work Zone Traffic Control CADD Workspace (see NCDOT CADD Services web-site)
 - This workspace will provide standard drawing levels to utilize along with other valuable tools and guidance when developing Traffic Control Plans and must be adhered to.

Scales

- All scales listed pertain to full size plan sheets. Full Size plan sheets shall be 22" x 34" with a 3" border on the left side and be derived from sheet cells found in cell libraries contained in the WZTC CADD workspace. Half size reproducible copies shall be on 11" x 17" sheets.
 - **Overview Drawings:** 1" = 100' (English) || 1:1000 (Metric)
 - **Detail Drawings:** 1"=50' (English) || 1:500 (Metric)

Note: Any deviation from the above must be approved by the WZTC Project Design Engineer.

Electronic File Naming and Sheet Numbering Convention

- Examples for individual plan detail drawings:
 - B4289_TC_TMP_1.DGN or B4289_TC_TMP_01.DGN
- Examples for individual plan base maps:
 - B4289_TC_TCP_BTMP_1.DGN or B4289_TC_TCP_BTMP_01.DGN
- All electronic design files are to contain one sheet **ONLY**. However, this is not critical for Title, Phasing and General Note sheets.

TCP Base Maps

- All electronic base maps created for use as a reference file to Traffic Control Overview and/or Detail plan sheets shall be coordinately correct.

TCP Overview and Plan Details

- All drawings should be consistent.
- Orientation of all drawings or sheets should match Roadway Plans as applicable.
- Station callouts should read from “Left to Right” and “Bottom to Top” whenever possible.
- All electronic data files (roadway, drainage, topography, etc.) and (TC base maps) for which overview and or detail plan view drawings are based shall be attached as reference files with a direct 1:1 scale relationship. (Exceptions for the scaling of a reference file are to occur only for supplemental blow up details shown on plan sheets to assist in plan interpretation).
- All Text Fonts shall be 71 utilizing the NCDOT font resource library (ncdotFont.rsc).

Text sizes for the various drawing elements can be derived from the WZTC Menu within the WZTC CADD workspace.

- Please make note of and adhere to the following rule of thumb:

DRAWING TEXT SIZE RULE: If using a scale other than those built into the WZTC Menu application it is up to the plan developer to determine the proper factor to apply to each of the text categories thus assuring that ALL TEXT stays the same size relevant to the drawing border regardless of the scale of the elements drawn.

Example: General Text @ 1"=200' = 28; General Text @ 1"=50'=7;

Therefore General Text @ 1"=100'=14

- All drawing elements are to be placed on proper levels as provided and defined within the WZTC Menu within the WZTC CADD workspace.

4.2 Traffic Control Plan (TCP) Layout and Numbering scheme

As more of the project information is determined and brainstorming begins, the layout style needs to be addressed. WZTC Project Design Engineer/Project Engineer and the Plan Developer will agree on the TCP layout style in the TMP-Scoping meeting. All subsequent submittals shall comply with the layout style that is agreed to in this meeting. Keep in mind the layout style is just as important as the information contained on the sheets. Some common layout styles are listed below; however, new and innovative ideas are always welcome.

Standard Sheet Layout and Numbering scheme:

TMP-1 Series of Sheets: *(Required all Plans)*

- TMP-1 Title Sheet / Project Vicinity or Location Map / Index of Sheets
- TMP-1A List of Applicable Roadway Standard Drawings, and Legend
- TMP-1B Transportation Operations Plan: (Management Strategies, General Notes, and Local Notes)

TMP-2 Series of Sheets: *(As necessary)*

*Example 2 Series Sheets (List not inclusive) – Use as needed –
Number sheets accordingly*

- TMP-2 Portable Concrete Barrier at Temporary Shoring Locations
- TMP-2A Temporary Shoring Data
- TMP-2B “Work Zone” Speed Limit Reduction
- TMP-2C Sign Designs (for Speed Reduction)
- TMP-2D Thermoplastic Rumble Strip Placement
- TMP-2E Thermoplastic Rumble Strips for Signalized Intersection Alert
- TMP-2F Special Sign Design(s)

TMP-3 Series of Sheets: *(Phasing)*

Note: *Phasing for small projects (i.e. Offsite Detours) may be placed on Sheet TMP-1B if desired. “Renumber subsequent plan sheets accordingly”*

Further Note: *Phasing may be presented as the beginning sheet for each phase of construction throughout the plans. (This scheme is useful when staging the construction by Areas).*

TMP-4 & Subsequent Sheets *(TMP – Detail Drawings)*

Possible Layout Styles:

Small Projects - (i.e. Offsite Detours)

Layout Style 1:

- TMP-1 Title Sheet / Project Vicinity or Location Map / Index of Sheets
- TMP-1A List of Applicable Roadway Standard Drawings, and Legend
- TMP-1B Transportation Operations Plan: (Management Strategies, General Notes, and Local Notes, Phasing)
- TMP-2 Special Sign Design(s)
(Number subsequent sheets TMP-2A, etc. as needed)
- TMP-3 ... Detail Drawing(s)

Layout Style 2:

- TMP-1 Title Sheet / Project Vicinity or Location Map / Index of Sheets
- TMP-1A List of Applicable Roadway Standard Drawings, and Legend
- TMP-1B Transportation Operations Plan: (Management Strategies, General Notes, and Local Notes)
- TMP-2 Special Sign Design(s)
(Number subsequent sheets TMP-2A, etc. as needed)
- TMP-3 Phasing Sheet
- TMP-4 ... Detail Drawing(s)

Large Projects

Layout Style 3:

- TMP-1 Title Sheet / Project Vicinity or Location Map / Index of Sheets
- TMP-1A List of Applicable Roadway Standard Drawings, and Legend
- TMP-1B Transportation Operations Plan: (Management Strategies, General Notes, and Local Notes, Phasing)

TMP-2 Series of Sheets: *(As necessary)*

*Example 2 Series Sheets (List not inclusive) – Use as needed –
Number sheets accordingly*

- TMP-2 Portable Concrete Barrier at Temporary Shoring Locations
- TMP-2A Temporary Shoring Data
- TMP-2B “Work Zone” Speed Limit Reduction
- TMP-2C Sign Designs (for Speed Reduction)
- TMP-2D Thermoplastic Rumble Strip Placement
- TMP-2E Thermoplastic Rumble Strips for Signalized Intersection Alert

- TMP-2F Special Sign Design(s)
- TMP-3 ... Phasing Sheet(s)
- TMP-4 ... Project Overview Sheet (per phase - Optional) or Detail Drawing(s)

Layout style 4:

- TMP-1 Title Sheet / Project Vicinity or Location Map / Index of Sheets
- TMP-1A List of Applicable Roadway Standard Drawings, and Legend
- TMP-1B Transportation Operations Plan: (Management Strategies, General Notes, and Local Notes, Phasing)

TMP-2 Series of Sheets: *(As necessary)*

*Example 2 Series Sheets (List not inclusive) – Use as needed –
Number sheets accordingly*

- TMP-2 Portable Concrete Barrier at Temporary Shoring Locations
- TMP-2A Temporary Shoring Data
- TMP-2B “Work Zone” Speed Limit Reduction
- TMP-2C Sign Designs (for Speed Reduction)
- TMP-2D Thermoplastic Rumble Strip Placement
- TMP-2E Thermoplastic Rumble Strips for Signalized Intersection Alert
- TMP-2F Special Sign Design(s)
- TMP-3 Project Overview Sheet for Areas
- TMP-4 Project Overview Sheet Phase 1
- TMP-5 Phasing Construction Phase 1
- TMP-6 ... Phase 1 Detail Drawings

Repeat for each construction phase

- TMP-x Project Overview Sheet for Areas
- TMP-x Project Overview Sheet Phase 1
- TMP-x Phasing Construction Phase 1
- TMP-x ... Phase 1 Detail Drawings